CLAIM AMENDMENTS

This list of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A method of analyzing a sub-model of a full system model, said system model representing a system, said method comprising the steps of:

defining the sub-model as a collection of entities in a visual medium;

determining which of the entities in the sub-model are calculation entities and which are data entities;

converting the calculation entities in the sub-model that depend on entities in the full model that are not included in the sub-model into temporary data entities;

identifying output entities in the sub-model, where the output entities are calculation entities that do not have an output to another entity; and

visually analyzing changes in the sub-model ~~by~~ in response to performing the calculations for the calculation entities.

2. (Previously Presented) The method according to claim 1 further comprising the step of deleting connecting arcs directed to the temporary data entities.

3. (Original) The method according to claim 1 further comprising the step of identifying isolated cycles in the sub-model.

4. (Original) The method according to claim 3 wherein the step of identifying isolated cycles includes selecting an entity in an isolated cycle as an output entity.

5. (Original) The method according to claim 4 wherein the step of selecting an entity in an isolated cycle as an output entity includes arbitrarily selecting an entity in the isolated cycle as an output entity.

6. (Original) The method according to claim 1 further comprising the step of assigning data to all data entities in the sub-model, sad step of assigning data including assigning data to the temporary data entities.

7. (Original) The method according to claim 1 further comprising the step of adding all global varieties to the sub-model that were not included in the sub-model when it was part of the full model.

8. (Currently Amended) A method of analyzing a sub-model of a full system model, said system model representing a system, said method comprising the steps of:

defining the sub-model as a collection of entities in a visual medium;

determining which of the entities in the sub-model are calculation entities and which are data entities;

converting the calculation entities in the sub-model that depend on entities in the full model that are not included in the sub-model into temporary data entities;

deleting connecting arcs directed to the temporary data entities;

identifying output entities in the sub-model, where the output entities are calculation entities that do not have an output to another entity; and

visually analyzing changes in the sub-model ~~by~~ in response to performing the calculations for the calculation entities.

9. (Original) The method according to claim 8 wherein the step of identifying isolated cycles includes selecting an entity in an isolated cycle as an output entity;

10. (Original) The method according to claim 8 wherein the step of selecting an entity in an isolated cycle as an output entity includes arbitrarily selecting an entity in the isolated cycle as an output entity.

11. (Original) The method according to claim 8 further comprising the step of assigning data to all data entities in the sub-model, said step of assigning data including assigning data to the temporary data entities.

12. (Original) The method according to claim 8 further comprising the step of adding all global varieties to the sub-model that were not included in the sub-model when it was part of the full model.

13. (Currently Amended) A system for analyzing a sub-model separated from a full system model, said system model representing a system, said system comprising:

means for defining the sub-model as a collection of entities in a visual medium;

means for determining which of the entities in the sub-model are calculation entities and which are data entities;

means for converting the calculation entities in the sub-model that depend on entities in the full model that are not included in the sub-model into temporary data entities;

means for identifying output entities in the sub-model, where the output entities are calculation entities that do not have an output to another entity; and

means for visually analyzing changes in the sub-model ~~by~~ in response to performing the calculations for the calculation entities.

14. (Previously Presented) The system according to claim 13 further comprising means for deleting the connecting arcs directed to the temporary data entities.

15. (Original) The system according to claim 13 further comprising means for identifying isolated cycles in the sub-model.

16. (Original) The system according to claim 15 wherein the means for identifying includes means for selecting an entity in an isolated cycle as an output entity.

17. (Original) The system according to claim 16 wherein the means for selecting an entity includes arbitrarily selecting an entity in the isolated cycle.

18. (Original) The system according to claim 13 further comprising means for assigning data to all data entities in the sub-model and assigning data to the temporary entities.

19. (Original) The system according to claim 13 further comprising means for adding all global varieties to the sub-model that were not included in the sub-model when it was part of the full model.